## INTERNATIONAL SEARCH REPORT

International Application No PCT/EP2004/006157

a. classification of subject matter IPC 7 C12N15/60 C12N C12N9/88 C12N1/21 C12P13/06 C12P13/08 C12Q1/68 //(C12N1/21,C12R1:00) According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) C12N C12P C12Q IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE, EMBL C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category ° EP 1 108 790 A (KYOWA HAKKO KOGYO KK) X 20 June 2001 (2001-06-20) page 220; table 1 claims 1,29 sequences 3458,6958 1-9 EP 0 356 739 A (AJINOMOTO KK) X 7 March 1990 (1990-03-07) abstract page 2, line 36 - line 40 page 3, line 31 - line 39 Patent family members are listed in annex. Further documents are listed in the continuation of box C. Special categories of cited documents: later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-O document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the International search 24/09/2004 15 September 2004 **Authorized officer** Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo ni, Fax: (+31-70) 340-3016 Huse, I

## INTERNATIONAL SEARCH REPORT

International Application No PCT/EP2004/006157

(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT					
ategory *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.				
X	EP 0 436 886 A (KERNFORSCHUNGSANLAGE JUELICH) 17 July 1991 (1991-07-17) abstract page 2, line 36 - line 40 page 2, line 48 - line 53 claim 1 claim 5	1-9				
X	US 2002/037562 A1 (BELARYEVA ALLA VALENTINOVNA ET AL) 28 March 2002 (2002-03-28) abstract page 2, paragraph 24	5–9				
A	WO 02/31158 A (ARCHER DANIELS MIDLAND CO) 18 April 2002 (2002-04-18) the whole document	1-9				
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International application No.

PCT/EP2004/006157

Box	No. I	Nu	cleotide a	nd/or amino	acid sequence	(s) (Continuat	ion of item	1.b of the	first sheet	) 
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	a.	type of	material				•			
		Х	a sequence	listing		•				
			table(s) rela	ated to the sequ	uence listing					
	L	format	of material							
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			furnished s	subsequently to	this Authority for	the purpose of se	earch			
2.		or fu	rnished, the	required stater	e than one version nents that the info go beyond the ap	ormation in the su	ibsequent or a	additional co	opies is identi	reto has been filed cal to that in the
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/EP2004/006157

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 1108790	A	20-06-2001	EP JP US	1108790 A2 2002191370 A 2002197605 A1	09-07-2002
EP 0356739	Α	07-03-1990	JP JP DE DE EP	2042988 A 2748418 B2 68925083 D1 68925083 T2 0356739 A1	25-01-1996 05-09-1996
EP 0436886	A	17-07-1991	DE DE EP	3942947 A1 59005821 D1 0436886 A1	30-06-1994
US 2002037562	A1	28-03-2002	RU CN FR JP	2209246 C2 1310233 A 2804971 A1 2001231584 A	29-08-2001
WO 0231158	<b>A</b>	18-04-2002	AU BR CA EP WO US	1314602 A 0114532 A 2425754 A1 1325135 A2 0231158 A2 2002177202 A1	2 09-07-2003 2 18-04-2002

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	gac gta g	ac gat	gac t	tt t	ca e	cgc	gta	tca	ggt	atg	ttc	acc	cga	cgc	96
	Asp Val A	sp Asp	Asp I	Phe S	Ser 1	Arg	Val	Ser	Gly	Met	Phe	Thr	Arg	Arg	
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	Ala Phe A														-
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	Gln Ile														
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						•				•					. :
	cga ctt	gat gaa	a gag	acc	act	ato	gcc	cgc	gca	atc	atg	ctg	gtt	aag	288
	Arg Leu														٠. ٠.
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20			-	•						•					•
	gtc tct	gcg ga	c agc	acc	aac	cgt	. ccg	cag	g ato	gto	gac	gco	gcg	aac	336
	Val Ser														
		10					105					110		- >	
		•				•									
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	Ile Phe	Arg Al	a Arg	y Val	l Vai	l As	p Val	L Ala	a Pr	o Ası	Ser	· Val	l Vai	l Ile	
		115				12				٠	125	_			
						•		٠							
	gaa tcc	aca gg	gc ac	c cca	a gg	c aa	g ct	c cg	c go	a ct	g ct	ga	gt:	g atg	432
30	Glu Ser	Thr G	ly Th	r Pro	o Gl	у Гу	s Le	u Ar	g Al	a Le	u Le	ı Ası	o Va	l Met	
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20	Asp	Val	Asp	Asp	Asp	Phe	Ser	Arg	Val <sup>-</sup>	Ser	Gly	Met	Phe	Thr	Arg	Arg	
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••				:						,							
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25					•							•		•			
•	Ile	Asn	Arg	Ile	Thr	Val	. Val	Val	Asp	Ala	Asp	Glu	Leu	Asn	Ile	Glu	
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	Arg	'neл	Asp	GĻU			. ını	. 116	: AIG				1166	سات ب			
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Val Ser Ala Asp Ser Thr Asn Arg Pro Gln Ile Val Asp Ala Ala Asn 105 100 Ile Phe Arg Ala Arg Val Val Asp Val Ala Pro Asp Ser Val Val Ile 5 115 120 125 Glu Ser Thr Gly Thr Pro Gly Lys Leu Arg Ala Leu Leu Asp Val Met 140 135 130 Glu Pro Phe Gly Ile Arg Glu Leu Ile Gln Ser Gly Gln Ile Ala Leu 10 155 150 145 Asn Arg Gly Pro Lys Thr Met Ala Pro Ala Lys Ile 15 <210> 3 <211> 519 <212> DNA <213> Artificial Sequence 20 <220> <223> Description of Artificial Sequence: modified AHAS 25 <220> <221> CDS <222> (1)..(519) <400> 3 30 atg get aat tet gae gte ace ege cae ate etg tee gta etc gtt eag Met Ala Asn Ser Asp Val Thr Arg His Ile Leu Ser Val Leu Val Gln 15 10 5 1

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	cag	atc	acc	aag	cag	ctc	aac	aaq	cta	atc	ccc	gtg	ctc	aaa	gtc	gtg	240
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30	Glu	Ser	Thi	: Gl <sub>3</sub>	Thr	Pro	G17	/ Lys	Leu	Arg	Ala	Leu	Leu	Asp	Val	Met	
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	Gln	Il	e Th	r Ly	s Gl	n Le	u As	n Ly	s Le	u Il	e Pr	o Va.	l Let	т гу	s val	. Val	••
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	Arc	, Le	u As	p Gl	u Gl	u Th	r Th	r Il	e Al	a Ar	g Al	a Il	e Met	t Le	u Val	l Lys	
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100 105 110

Ile Phe Arg Ala Arg Val Val Asp Val Ala Pro Asp Ser Val Val Ile.

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Glu Ser Thr Gly Thr Pro Gly Lys Leu Arg Ala Leu Leu Asp Val Met
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